

Remarks

The applicant gratefully acknowledges the withdrawal of the restriction requirement.

Independent claims 1, 18, 29, and 30 have been amended to more particular claim the invention. Claims 1 has been amended to clarify that the footplate can be adjusted to increase the flexion of the foot without changing the angle between the sole and the at least one upright. Claim 6 has been amended to clarify that it is the one or more wedges that are used to adjust the footplate to increase the dorsiflexion of the foot. Claims 18 and 29 have been amended to clarify that the addition of the one or more wedges increases the dorsiflexion of the foot without changing the angle between the sole of the boot and the upright(s). Similarly claim 30 has been amended to clarify that the claimed method involves adjusting the footplate to increase the dorsiflexion of the foot without changing the angle between the sole of the boot and the at least one upright.

Support for this limitation can be found, among other places, at ¶¶ 15, 17 and FIGS. 1-3. The specification discloses that the upright arms 24 are preferably secured to the base 22 using rivets 46. This provides a rigid connection between the uprights 24 and base 22, which includes sole 40. See ¶ 15. Wedges 44 are shaped to fit on top of base 22 and are used to increase the angle of dorsiflexion of the foot. See ¶¶ 22. As shown in FIGS. 1-3, the relationship between the sole 40 and the upright arms 24 is not affected by the number of wedges 44 that are present. Original claim 31 recites the process of adjusting the footplate to increase the amount of dorsiflexion of the foot by adding a wedge onto the footplate. Therefore, the specification fully supports all of the limitations of the currently amended claims.

The examiner has object to the drawings because they fail to show a cover for the sole. It

is respectfully asserted that the cover that is described in the specification is not essential for a proper understanding of the disclosed invention. Claims 17 and 35, which are the only two claims that recite the cover as an element of the claimed device have been cancelled. It is respectfully asserted that the drawings are now in compliance with 37 C.F.R. §1.83(a) because each feature of the claims is depicted in the drawings. Consequently, applicant respectfully requests that the objection be reconsidered and withdrawn.

It is respectfully asserted that none of the cited references disclose or render obvious each and every limitation of the currently presented claims. Specifically none of the cited references disclose a boot that can adjust the dorsiflexion of the foot without changing the angle between the upright and the sole of the boot.

Crispin does not disclose a boot for the treatment of plantar fasciitis. Instead the boot disclosed in Crispin is intended to be used to treat an ankle fracture. While it discloses that the ankle joint can be set to a fixed angular position, col. 2, ll. 54-57, the only angle that it discloses actually locking the device in is the neutral position where there is no dorsiflexion of the foot, col. 8, ll. 5-10. In fact, Crispin discloses that when the ankle joint is held at a fixed position it is normally the neutral position. Col. 8, ll. 5-10. The neutral position cannot be considered an amount of dorsiflexion. Instead of disclosing the placement of the foot in various fixed degrees of dorsiflexion, Crispin teaches the use of stops on the ankle joint to provide a limited range of motion for the ankle. Col. 3, ll. 14-17; See also FIG. 7 and col. 8, ll. 25-29 (discussing how the stops are set to obtain a range of motion only through a dorsiflexion angle).

An individual's gait would be negatively affected if the angle between the sole of the boot and the uprights changed, as would have to be done in Crispin to change the amount of

dorsiflexion of the foot. As disclosed in the specification, the sole 40 is shaped to allow a near normal walking gait. See ¶¶ 13-14. In a preferred embodiment sole 40 is made up of three surfaces, rear surface 70 which absorbs the shock of the boot striking the ground, center surface 68 that supports the user's weight during mid stance, and front surface 66 that allows the user to easily push off the ground. This shape is dependent upon the angle between the sole and the upright being fixed. If that angle were changed then the sole 40 would have to be altered in order to maintain a near normal walking gait at the new sole angle.

Maintaining a near normal walking gait is less significant in an ankle fracture boot like that disclosed in Crispin because the boot is not intended to be fixed at various angles of flexion. Instead, it is intended to be fixed at a single angle, preferably the neutral position, during the early stages of healing. As the fracture heals, the boot can be adjusted to allow range of motion exercise without removing the boot. Col. 3, ll. 3-10. The range of motion can also be increased to allow progressive functional activity during the rehabilitation process. Col. 3, ll. 3-21. The increased mobility is described as enhancing and speeding up recovery from the injury. Col. 8, ll. 56-67. While angular motion of the ankle and weight bearing may speed recovery, there is no disclosure that a near normal gait is also required. There is also no disclosure that the Crispin boot is intended to maintain a near normal walking gait. In contrast, maintaining a near normal walking gait while placing the foot at increased fixed degrees of flexion is significant for a walking boot such as the current invention.

Powell does not disclose or provide the motivation to either use wedges to change the amount of dorsiflexion of the foot in the boot of Crispin or to change the dorsiflexion angle of the foot without changing the angle of the sole to the uprights of the boot. First, Powell discloses

a night splint for treating plantar fasciitis. Col. 2, ll. 24-29. As such, it does not disclose a sole that is shaped to allow a near normal walking gait, because it is not intended for an individual to walk while wearing the disclosed splint. Second, Powell does not disclose the use of wedges to change the amount of dorsiflexion of the foot. Instead, it discloses the use of wedges to change the dorsiflexion of the toes. This is achieved by placing the apex of the lifting members (i.e. wedges) at the level of the metatarsalphalangeal (MTP) joint. Col. 4, ll. 51-52. In this position, the wedges are used to provide localized dorsiflexion of the foot's phalanges in order to stretch the plantar fascia. Col. 4, ll. 60-67. This is completely different than the wedges disclosed in the specification that are used to change the amount of dorsiflexion of the foot in order to stretch the Achilles tendon.

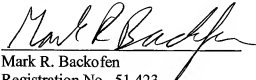
While Powell discloses a joint in the splint at the ankle, this is disclosed as only being used to fold up the splint when not in use. Col. 3, ll. 48-54. The hinge at the ankle is not used to alter the angle of dorsiflexion of the foot. Even if the joint were disclosed as being useful for adjusting the base of the hinge to alter the dorsiflexion of the foot, changing the angle would also change the angle of the sole with respect to the upright. This would have a negative impact on the ability to walk with a near normal gait while using the splint. For example, if the joint were adjusted to increase the dorsiflexion of the foot, the toe end of the sole would rise off the ground. As a result, an individual would pitch forward upon heel strike because the sole of the splint would be angled upward.

The Bledsoe publication, which discloses an invention co-created by the current inventor, also does not have anything to do with the treatment of plantar fasciitis by stretching the Achilles tendon. This reference is under an obligation of assignment to Medical Technology, Inc., which

is the assignee of the entire interest in the current application. Therefore, pursuant to 35 U.S.C. 103(c) it is not available for use in an obviousness rejection under 35 U.S.C. §103(a). While the reference does disclose a walking boot, the boot is intended to reduce the pressure applied to the bottom of the foot during walking and other weight bearing activities in order to allow a diabetic foot to heal. It is not intended to treat plantar fasciitis by stretching the Achilles tendon. There is absolutely no disclosure that the footplate of the walking boot can be adjusted to place the foot in a desired degree of dorsiflexion. Nor is there any disclosure of changing the degree of dorsiflexion of the foot without changing the angle between the sole and the uprights. Instead, the base of the boot is completely fixed relative to the upright and maintains the ankle in a fixed position.

For the reasons discussed above, it is respectfully submitted that all of the claims as now presented are patentable over the prior art. Accordingly, an early reconsideration and allowance of this application is respectfully requested. It is believed that no fees are due in connection with this paper. However, the Commissioner is hereby authorized to charge any required fee to the Locke Liddell & Sapp LLP deposit account no. 12-1781.

Respectfully submitted,


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